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**KEATING & BENNETT LLP****Fax**

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<b>To:</b> Examiner H. Kwok	<b>From:</b> Christopher A. Bennett
<b>Fax:</b> 571-273-8300	<b>Date:</b> August 26, 2005
<b>Phone:</b> 571-272-2197	<b>Pages:</b> 14
<b>Re:</b> 09/886,667	<b>CC:</b>
36856.653	

**•Comments:**

Examiner Kwok,

Please find attached hereto the following documents for the above-identified application:

1. Amendment;
2. Petition for One-Month Extension of Time; and
3. One (1) Credit Card Payment form.

Respectfully submitted,



Christopher A. Bennett  
for  
Keating & Bennett, LLP  
(Registration Number 46,710)

**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this correspondence is being transmitted to  
Group Art Unit 2856, 571-273-8300, addressed to:  
Commissioner for Patents, P.O. Box 1450, Alexandria, VA  
22313-1450.

Date: August 26, 2005

  
Sonia V. McVean

Attorney Docket No. 36856.653

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>Applicant:</b> Masaya TAMURA	<b>Art Unit:</b> 2856
<b>Serial No.:</b> 09/886,667	<b>Examiner:</b> H. Kwok
<b>Filed:</b> June 21, 2001	
<b>Title:</b> COMPOSITE SENSOR DEVICE AND METHOD OF PRODUCING THE SAME	

**AMENDMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated May 16, 2005, the period for response to which has been extended to September 16, 2005, by the accompanying Petition for One-Month Extension of Time, please amend the above-identified application as follows:

- ☐ **Amendments to the Specification** begin on page      of this paper.
- ☒ **Amendments to the Claims** are reflected in the listing of the claims which begins on page 2 of this paper.
- ☐ **Amendments to the Drawings** begin on page      of this paper and include an attached replacement sheet. An **Appendix** including the amended drawing figures is attached following page      of this paper.
- ☒ **Remarks/Arguments** begin on page 5 of this paper.

Please note, if a box is not checked, then no corresponding amendment is being made.

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### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **LISTING OF CLAIMS:**

Claim 1 (currently amended): A composite sensor device including an angular velocity sensor and an acceleration sensor comprising:

a substrate;

a displacement portion forming member disposed on a the substrate, the displacement portion forming member including a vibrator for an angular velocity sensor, to be vibrated and displaced by a Coriolis force caused by an angular velocity and a movable member for an acceleration sensor, to be movably displaced by application of an acceleration, the vibrator and the movable member being spaced from each other; and

a lid disposed on an upper side of the displacement portion forming member to cover and be spaced from the vibrator of the angular velocity sensor and the movable member of the acceleration sensor; and, wherein

the substrate, the displacement portion forming member and the lid, ~~defining~~ define a space for accommodating and sealing the vibrator of the angular velocity sensor and the movable member of the acceleration sensor, in such a manner that the vibrator and the movable member can be vibrated, the space being sectioned into an angular velocity sensor space for accommodating and sealing the vibrator of the angular velocity sensor and an acceleration sensor space for accommodating and sealing the movable member of the acceleration sensor which is not communicated with the angular velocity sensor space, ~~wherein the angular velocity sensor space is sealed in a first environment and wherein the acceleration sensor space is sealed in a second, different environment;~~

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the angular velocity sensor space is sealed in a vacuum state in which the vibrator of the angular velocity sensor can be vibrated at a high frequency in the kHz range or greater and at an amplitude that is greater than a desired value;

the acceleration sensor space is sealed in an atmospheric pressure state for preventing high-frequency vibrations in which the movable member of the acceleration sensor can be vibrated at a low frequency of 100 Hz or less, and the movable member of the acceleration sensor is prevented from vibrating at a high frequency in the kHz range or greater and at an amplitude that is greater than the desired value even when vibrations of the vibrator of the angular velocity sensor are transmitted to the movable member of the acceleration sensor;

the angular velocity sensor and the acceleration sensor have constant potential sites so that the sensors are maintained at set constant potentials, respectively, said constant potential site of the angular velocity sensor being electrically connected to the constant potential site of the acceleration sensor; and

a connection electrode is arranged to connect both of the constant potential site of the angular velocity sensor and the constant potential site of the acceleration sensor to an external circuit.

Claims 2-4 (canceled).

Claim 5 (currently amended): A composite sensor device according to claim 31, wherein ~~the first environment is a vacuum state and the second environment is a~~ damping agent ~~which fills the acceleration sensor space.~~

Claim 6 (canceled).

Claim 7 (currently amended): A composite sensor device according to any one claims 1, 2 and 5 ~~to 6~~, wherein the substrate is an SOI substrate comprising a supporting layer, an oxide layer, and an active layer laminated together, and the

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constant potential site of the acceleration sensor to an external circuit" as recited in Applicant's claim 1.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Funk et al. and as being anticipated by Saito.

The Examiner alleged that Masahiro et al. teaches that hollow parts around the mass bodies of an angular velocity sensor should preferably be in a vacuum state or near vacuum state. However, for the reasons described above, contrary to the Examiner's allegations, it would not have been obvious to modify the devices of Funk et al. and Saito so as to include an angular velocity sensor space which is in a vacuum state because the angular velocity sensor space and the acceleration sensor space are not sealed from one another. Thus, if the angular velocity sensor space were provided so as to be in a vacuum state, the acceleration sensor space would necessarily also be in a vacuum state. Accordingly, Applicant respectfully submits that the combination of Funk et al. or Saito and Masahiro fails to teach or suggest the features of "the angular velocity sensor space is sealed in a vacuum state in which the vibrator of the angular velocity sensor can be vibrated at a high frequency in the kHz range or greater and at an amplitude that is greater than a desired value" and "the acceleration sensor space is sealed in an atmospheric pressure state for preventing high-frequency vibrations in which the movable member of the acceleration sensor can be vibrated at a low frequency of 100 Hz or less, and the movable member of the acceleration sensor is prevented from vibrating at a high frequency in the kHz range or greater and at an amplitude that is greater than the desired value even when vibrations of the vibrator of the angular velocity sensor are transmitted to the movable member of the acceleration sensor" (emphasis added) as recited in Applicant's claim 1.

Accordingly, Applicant respectfully submits that Funk et al., Saito and Masahiro, applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in Applicant's claim 1.

In view of the foregoing amendments and remarks, Applicant respectfully submits

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that claim 1 is allowable. Claims 5 and 7 depend upon claim 1, and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicant petitions the Commissioner for a ONE-month extension of time, extending to September 16, 2005, the period for response to the Office Action dated May 16, 2005.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: August 26, 2005

  
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